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ABSTRACT

In an experiment designed to assess the relative influence of "objective," social, and political factors upon school decisions, 168 principals read a description of a fictitious school program followed by informative reflections from three sources: tests, peers, and superiors. They then rated their own inclination to adopt the program. The valences (positive/negative) of the factors were permuted in a way that made it possible to examine the contribution of each to the adoption decision. The results of this and supplementary analyses strongly indicate that all three factors should be taken into account formally in educational evaluation. (Author)

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An Experimental Study of Factors that Influence School Decisions: Implications for Evaluation

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NATIONAL INSTITUTE OF EDUCATION

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TM006 313

Overview

If all the evaluators in this room were asked to define the purpose of evaluation, we could probably pick one common note out of the noise: that evaluation is supposed to help people make decisions. And yet one of the most familiar laments of the evaluator is that when the time comes for decision making, nobody pays any attention to the evaluation. As Rippey said in 1973,

> There seems to be no evidence that evaluation, although the law of the land, contributes anything to educational practice other than headaches for the researcher, threats for the innovators, and depressing articles for journals devoted to evaluation (p. 9).

One major cause of the problem, in my view, is the practice of emphasizing so-called objective data to the exclusion of other factors that may affect the way decisions are made. This was the proposition I tested in the study that I will describe here. First, I'd like to present my theoretical perspective.

Problems of Relying on Objective Evidence Alone as an Evaluation Criterion

Objectives-based models of evaluation have gained wide use in education since the 60s. The accountability movement had a lot to do with that, because of its emphasis on demonstrated effectiveness. Today, although there is a trend toward acceptance of supplementary anecdotal data, it is still common for educational evaluations to focus exclusively, or almost exclusively, on a program's attainment of certain pre-determined objectives. The rationale, ostensibly, is that the program's reason for being is to fulfill these objectives. Yet there are persuasive reasons to believe that when a

decision is made, say, to continue or discontinue a program, the decision is affected by several other powerful factors. For example, a decision maker, in addition to considering whether or not a program has fulfilled its manifest objectives, must also consider its fulfillment of latent objectives, such as enhancing the agency's prestige or expanding its resources. These are objectives of the program, in a sense, but they're objectives that ordinarily are not declared as decision criteria, although they are probably central to the survival of any bureaucracy. So even an objectives-based model of evaluation is likely to overlook many salient objectives--the ones that are not advertised publicly but that are critical to organizational welfare. This speculation, as some of you will recognize, derives from Merton's (1968) discussion of manifest and latent functions of social actions.

Social and Political Factors as Additional Elements of an Evaluation Model

Two other concepts from sociology bear on decision making and the way evaluation serves decision making: these are the concepts of reference group (see, for example, Sherif, 1969) and role set (see Merton, 1957). In simple terms, our reference groups consist of those whom we regard as our kind, or whom we would like to regard as our kind. There is much evidence to indicate that we depend heavily on reference groups for clarification and reinforcement of our personal beliefs and values. For example, what a second grader thinks of the new kid in class or what an adult thinks of a new political candidate may depend as much on the reactions of others

to the new individual as on qualities intrinsic to that individual. In the same vein, the credibility you grant to the presentations you hear today may depend largely on the way the presentations are received by other members of the audience. What does this imply for the practice of evaluation? To me, it implies that statistical data or other kinds of information presented in what we have come to regard as a scientific format are unlikely to affect decisions much unless they have been validated socially--that is, by consensus of those whose judgment the decision maker trusts. I call this "social influence."

Then there is political influence. When we speak of decisions made in an organizational setting, the idea of an autonomous decision maker may be a fiction. Organizational decisions are likely to be negotiated rather than flatly made. And it is the members of the decision maker's role set with whom they are negotiated: these are the individuals who are in a position to command or coerce the decision maker's actions. They may be his or her superiors, or peers with something to trade, or influential constituents. Whereas reference group members possess wisdom, role set members possess power. Wisdom persuades while power compels, and these forces do not always move in the same direction. So what a decision maker wants to do does not necessarily coincide with what he or she can do.

Program Novelty: a Fourth Element

So far, I've postulated a three-factor model of decision making, in which objective evidence, social influence, and political

influence all operate, at least potentially, on the deliberations of a decision maker. There is a fourth factor, which may be called "situational novelty" or "availability of precedent" or "certainty of consequences" that can be expected to interact with the other three factors: that is, in a novel decision situation, the effects of the other factors are heightened; in a routine situation, they are diminished. This hypothesis comes from the literature on social change: we tend to do in the present as we have done in the past, meaning that external influence may not count for much when the decision maker has a strong precedent to rely on. But when the past doesn't offer a precedent for what to do now, external influences can be expected to have greater effect.

An Experimental Test of the Model

To test the value of these conceptions as bases for a model of evaluation, I simulated a decision situation that might be experienced by school principals. In this simulation, each of the factors I've discussed was represented by a written paragraph, and each paragraph was prepared in two alternate versions, representing varying conditions of that factor.

Each combination of the four factors constitutes a unique decision scenario, and since four two-level factors can be combined in 16 different ways, 16 different decision scenarios resulted. I distributed the scenarios randomly, by mail, to 128 elementary and 128 secondary school principals in Los Angeles. If you will each imagine yourselves as one of these principals, I'll illustrate with a scenario that you might have received. It proposes the adoption

of a tutorial experiment with a possibly controversial counter-culture flavor; this represents a novel program--one that is difficult to relate to precedent. The program description is followed by an account of favorable achievement test results from a tryout elsewhere; this represents positive objective evidence. Next, it is reported that the Board of Education is generally opposed to adoption of the program, and will look with disfavor on principals who do adopt it without strong justification; this, as you might guess, represents political influence toward a negative decision. Finally, the administrators' association, which is the principals' local professional fraternity, is described as endorsing adoption of the program; this represents social influence toward a positive decision. Now that you have this information, would you adopt the program? This was the question asked of the participating principals. They answered by rating their disposition on a seven-point scale that ranged from "Definitely would" to "Definitely would not." I should note here that of the 256 principals who received the instrument, 65% responded. The size of the final analytic sample for this study was 157.

Results

I analyzed the responses in the framework of an analysis of variance, and these were the results. The Objective, Social, and Political factors all affected principals' decisions significantly. The main effect of the Social Influence factor was largest, followed by Objective Evidence, then Political Influence. As I had predicted, principals were swayed quite strongly by Objective Evidence when

the program in question was the novel one, but were not swayed at all by that factor when the program in question was the routine one; in more technical terms, there was an interaction between the Objective Evidence and Program Novelty factors.

The relationship between Program Novelty and the Social and Political factors was more complex: there was a significant four-way interaction involving these three factors plus the factor of principals' school level--elementary/secondary. There may be a way to describe this relationship in words, but I won't attempt it here. A very general conclusion can be drawn, though: the novelty of a decision situation does make a difference in the way principals are affected by external sources of influence.

The best way to express the magnitude of these effects is to say that the Political and Social Influence factors swayed principals by about one and a half intervals on a decision scale that ran across six intervals. The Objective Evidence factor had a separate effect of about one interval under the Novel program condition. Under the Routine program condition, as I mentioned, objective evidence had virtually no effect.

In general, then, what I found was that objective evidence has a prominent effect on decisions made under novel circumstances, but counts for almost nothing under routine circumstances, while the effects of political and social influence are more consistent, and, together, are larger.

Conclusions

If these findings have reinforced in some of you the belief

that assessment of social and political influence should be incorporated formally in models of evaluation, the question of how still remains to be discussed. Tests of additional hypotheses that I have not had time to describe here indicate that the social influence that others exert upon a decision maker depends partly on the degree to which they have a common interest in the issue at hand. And the political influence of others depends, at least partly, on the degree to which they control resources valuable to the decision maker. So to assess social and political influence, it is necessary to identify the dispositions of two groups of people: those with whom the decision maker identifies in the issue of the moment and those who share in the power to give or take away resources that the decision maker values.

To reduce this whole presentation to a pithy moral: evaluation, if it's going to be useful, shouldn't provide just objective evidence, it should provide all the evidence.

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Appendix A

Illustration of the Treatment:

Excerpts from Two Contrasting Versions of the Experimental Instrument

Note: In the first version, the program proposed is Routine and the Objective Evidence, Political Influence, and Social Influence factors are all positive. In the second version, the program proposed is Novel, and the Objective, Political, and Social factors are all negative.

INSTRUCTIONS

Following is a description of a situation that is strictly hypothetical (although it is a composite of real events). Imagine that the situation applies to you and the school of which you are actually principal. Try to think and react as you would if this were real life instead of fiction. If any essential details are missing from the description, furnish them yourself on the basis of what you know about your school and its community. There is no predetermined "right" response to this situation. On the contrary, the purpose of presenting it is to discover what the appropriate responses may be, in the judgment of experienced professionals like yourself.

. . . . . .

NOGAP AND YOUR SCHOOL

The Los Angeles Unified School District and the U.S. Office of Education have contracted to jointly fund a one-year tryout of NOGAP (New Opportunities for Growth to Achievement Potential), an experiment in intensive tutorial guidance for elementary school students. The program originated in the Philadelphia school system and was found promising enough there to merit tryout in other areas. Its goal: to close the gap between achievement and aptitude among students who have been identified as performing far below their potential. Under the terms of the District's agreement with the Office of Education, NOGAP is to be made available to a fixed number of randomly-chosen schools. The principal at each one is to judge how well NOGAP would suit the particular school and decide whether or not to adopt the program for a year's trial, beginning next September. Yours was one of the schools chosen, and you must make that decision.

HOW NOGAP WORKS

NOGAP consists essentially of assigning one permanent tutor to each participating student and ensuring that they meet in tutorial sessions for five hours every week throughout the school year. These sessions are held during the school day in whatever areas of the school may be available (e.g., the auditorium, a vacant classroom, a quiet part of the school grounds). The scheduling of the sessions is arranged to suit the mutual convenience of tutors and regular teachers. A major premise of NOGAP is that gross failure to reach one's potential is as much a problem of emotions as of intellect, thus the sessions are not necessarily academic in nature, but may take form in response to any urgent needs of the students.

STUDENT SELECTION

Students who are nominated for participation (by teachers, principals, counselors, parents, or themselves) are screened by a special psychometric procedure, and those whose aptitude exceeds their achievement by a standard figure are admitted to the program (10% to 20% of any school population can be expected to qualify--this proportion holds fairly constant across all types of schools).

TUTOR SELECTION Under the Office of Education guidelines, enthusiasm and reliability are the prime criteria for selection of tutors (who, incidentally, must be willing to work for relatively low pay). When the program was being developed in Philadelphia, most tutors were college students; but housewives, business people, and retired persons were also involved.

YOUR ROLE AS PRINCIPAL As stipulated, each principal invited to participate in NOGAP will be free to decide whether or not to adopt the program. But a principal who does choose to adopt NOGAP must agree to administer the program in keeping with fairly explicit written guidelines. The Office of Education insists on this agreement to ensure that NOGAP is faithfully implemented and fairly tested.

WHAT'S YOUR FIRST IMPRESSION? On the next page, certain information is presented that you may find relevant to the issue of whether or not to adopt NOGAP, but before reading further, answer Question 1, below. You may review preceding information, but please do not read ahead.

1. Just on the basis of your knowledge and feelings at this point, how do you think you would decide? Would you adopt NOGAP or not? (CHECK ONE RESPONSE.) (22)

- ☐ 1. Definitely ...
- ☐ 2. Almost definitely ... } would not adopt NOGAP.
- ☐ 3. Probably ...
- ☐ 4. Can't say either way.
- ☐ 5. Probably ...
- ☐ 6. Almost definitely ... } would adopt NOGAP.
- ☐ 7. Definitely ...

* *

PLEASE DO NOT READ ANY FURTHER UNTIL YOU HAVE ANSWERED QUESTION 1, ABOVE.

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DON'T READ THIS PAGE UNTIL YOU HAVE ANSWERED QUESTION 1, PRECEDING PAGE.

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PHILADELPHIA POSTTEST RESULTS SHOW NOGAP SUCCESS

Last year in Philadelphia, schools participating in NOGAP were systematically paired with non-participating schools for evaluative purposes. NOGAP students were then matched with students in the paired schools on the basis of achievement and aptitude scores. Thus the two groups, NOGAP participants and non-participants ("controls"), were equal in initial status. However, posttests administered at the end of the program year revealed that NOGAP students had surpassed the controls on 4 of the 7 achievement measures, and did at least as well on the remaining 3: in reading comprehension, vocabulary, language expression, and mathematical concepts, NOGAP students significantly outscored the control students; there were no statistically significant differences between them in the other 3 areas, but the overall evidence leaves little doubt--NOGAP <u>works</u>.

BOARD OF EDUCATION URGES ADOPTION BY ALL INVITED SCHOOLS

The Board of Education has taken a position very much in favor of NOGAP. A leading member has called the program "the first really exciting innovation in a long time." Whether the enthusiasm is due most to NOGAP's educational promise, to its public relations value, or to the extra federal money it will bring in is hard to determine. Whatever the case, it is clear that the Board looks forward to a high rate of acceptance among the schools to which the program is offered. Principals who refuse the offer, then, would be well-advised to prepare strong justifications of their refusal in case of inquiries from above.

AESA STRONGLY IN FAVOR OF NOGAP

A committee of the Association of Elementary School Administrators (AESA) critically examined the proposed layout of NOGAP and concluded that, although the program undeniably created an administrative burden, it was worth its weight. Specifically, the committee found that, if things went right, NOGAP could do much to stimulate community and organizational cohesiveness --especially in areas where cohesion is desperately lacking at present. The AESA committee's recommendation ended with this statement: "We can easily imagine the problems that <u>might</u> arise in administering NOGAP, but we are convinced beyond question that the potential rewards make the experiment worth the risk. For the sake of the students and the sake of the school system, NOGAP should be adopted by all the schools to which it is made available, unless extreme circumstances make it impossible to take the program on."

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INSTRUCTIONS

Following is a description of a situation that is strictly hypothetical (although it is a composite of real events). Imagine that the situation applies to you and the school of which you are actually principal. Try to think and react as you would if this were real life instead of fiction. If any essential details are missing from the description, furnish them yourself on the basis of what you know about your school and its community. There is no predetermined "right" response to this situation. On the contrary, the purpose of presenting it is to discover what the appropriate responses may be, in the judgment of experienced professionals like yourself.

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NOGAP AND YOUR SCHOOL

The Los Angeles Unified School District and the U.S. Office of Education have contracted to jointly fund a one-year tryout of NOGAP (New Opportunities for Growth to Achievement Potential), an experiment in intensive tutorial guidance for junior and senior high school students. The program originated in the Philadelphia school system and was found promising enough there to merit tryout in other areas. Its goal: to close the gap between achievement and aptitude among students who have been identified as performing far below their potential. Under the terms of the District's agreement with the Office of Education, NOGAP is to be made available to a fixed number of randomly-chosen schools. The principal at each one is to judge how well NOGAP would suit the particular school and decide whether or not to adopt the program for a year's trial, beginning next September. Yours was one of the schools chosen, and you must make that decision.

HOW NOGAP WORKS

NOGAP extends the school beyond its traditional physical boundaries. Under the program, "family" groups are formed, each consisting of six students and two tutors. These groups assemble for a total of four after-school hours per week--afternoons, evenings, or weekends--in whatever meeting areas may be available (e.g., classrooms, the homes of students or tutors). A major premise of NOGAP is that gross failure to reach one's potential is as much a problem of emotions as of intellect, thus the sessions are not necessarily academic in nature, but may take form in response to any urgent needs of the students.

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- ☐ 5. Probably ...
- ☐ 6. Almost definitely ... } would adopt NOGAP.
- ☐ 7. Definitely ...

* *

PLEASE DO NOT READ ANY FURTHER UNTIL YOU HAVE ANSWERED QUESTION 1, ABOVE.

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PHILADELPHIA POSTTEST RESULTS FAIL TO SHOW NOGAP EFFECT

Last year in Philadelphia, schools participating in NOGAP were systematically paired with non-participating schools for evaluative purposes. NOGAP students were then matched with students in the paired schools on the basis of achievement and aptitude scores. Thus the two groups, NOGAP participants and non-participants ("controls"), were equal in initial status. They turned out to be equal in final status, too, since posttests administered at the end of the program year revealed no real change in the relative performance of the two groups on any of the 7 achievement measures. (Actually, the control students scored higher in 4 areas and the NOGAP students in 3, but none of these differences was statistically significant.) In regard to its formal objectives, then, NOGAP had no detectable effect. For the coming year, though, certain changes have been made in the program plan to correct problems encountered in the past, and it is believed that the modified program has a good chance of living up to the original expectations.

BOARD OF EDUCATION OPPOSES ADOPTION BY SOME SCHOOLS

Although the Board of Education is officially in favor of the District's participation in NOGAP, Board members are known to object to the Office of Education's insistence on random invitation of schools. Their general feeling is that there are certain schools where NOGAP would work and other schools where, for various reasons, it simply wouldn't. Because the District is paying half the NOGAP bill, the Board is especially concerned about the possibility that the program will be adopted at some schools where it has little chance of succeeding. Thus Board members and other higher-ups might look with displeasure on principals who go ahead and adopt NOGAP without convincing reasons for doing so.

LAASSA WARNS OF ADMINISTRATIVE BURDEN

During negotiation of the agreement between the District and the Office of Education, a committee of the Los Angeles Association of Secondary School Administrators (LAASSA) recommended that some of the NOGAP funding be budgeted to provide for a part-time administrative assistant to the principal at each participating school. The committee argued that most principals, already heavily burdened, would have difficulty handling the many administrative details of NOGAP. The response from the Office of Education was that principals were to rely on volunteers for this sort of help, since NOGAP was expected to generate community and organizational involvement. The LAASSA committee considered this expectation unrealistic, and resolved to advise principals against adopting NOGAP unless they had plenty of free time to commit to it. Otherwise, the committee maintained, acceptance of the extra burden would create an undesirable precedent, inviting further demands on the already taxed energies of LAUSD principals.

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Appendix B

Selected Tables and Figures Illustrating Results of the Experiment

Table 2

Effects of Design Factors Upon Final Adoption Decision: Analysis of Covariance Summary

Source of Variation	SS	df	MS	F
Covariate (Predisposition)	223.46	1	223.46	196.38***
A: Objective Data	11.60	1	11.60	10.19**
B: Social Data	32.55	1	32.55	28.61***
C: Political Data	9.78	1	9.78	8.60**
D: Program Novelty	0.17	1	0.17	0.15
E: School Level	0.65	1	0.65	0.57
AD	11.23	1	11.23	9.87**
BD	0.24	1	0.24	0.21
CD	1.93	1	1.93	1.70
BE	0.38	1	0.38	0.33
CE	0.17	1	0.17	0.15
BCDE	5.51	1	5.51	4.84*
Pooled incidental interactions (BC, DE, BCD, BCE, BDE, CDE)	2.86	6	0.48	0.42
Error (residual)	157.03	138	1.14	
Total	457.56	156		

*P<.05 **P<.01 ***P<.0001

Final adoption decision:

"Considering what you know now, would you adopt NOGAP or not?"

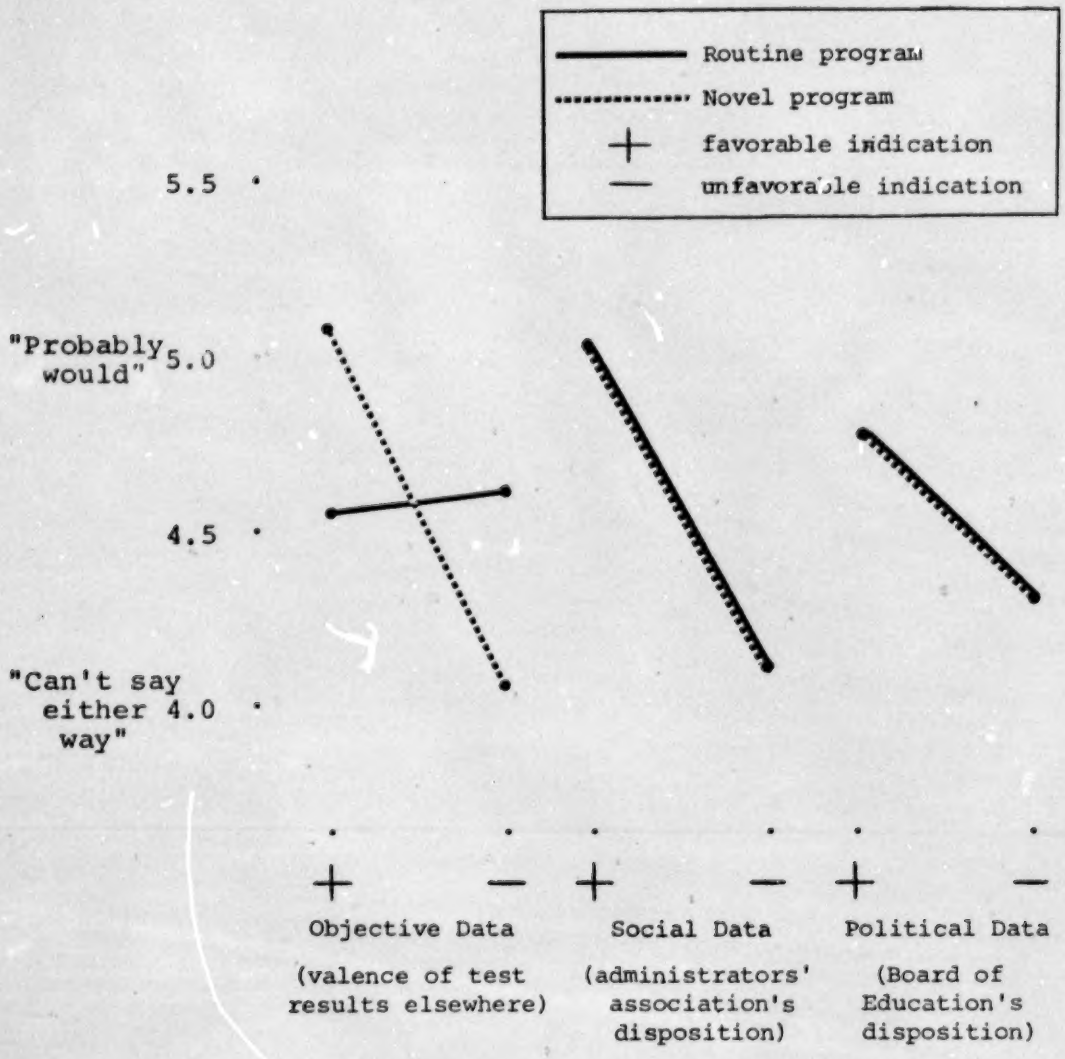

Figure 1. Influence of Objective, Social, and Political Data factors upon principals' decisions to adopt the Routine vs. the Novel program.

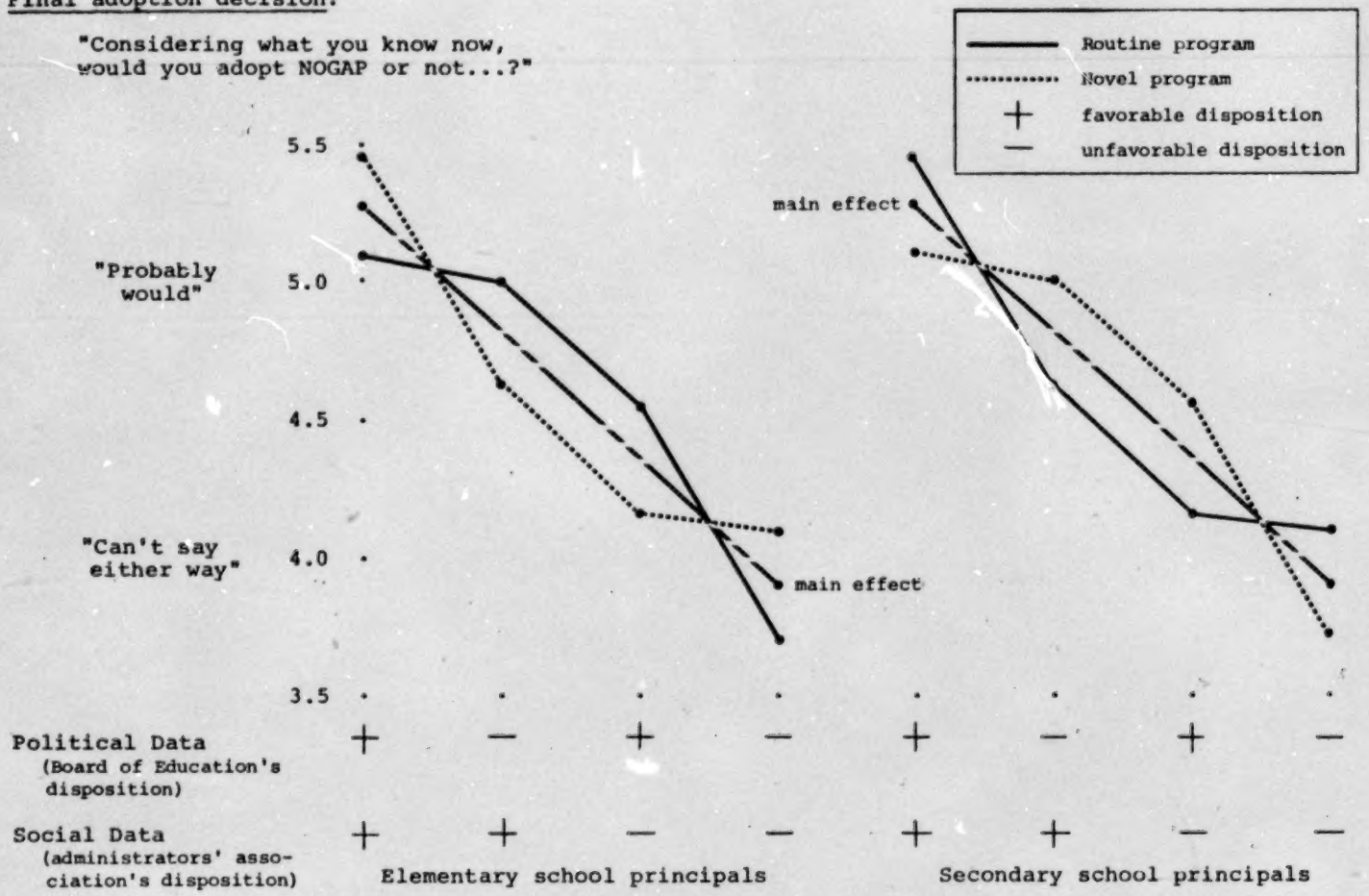

Figure 2. Interacting influence of Social Data, Political Data, Program Novelty, and School Level factors upon principals' adoption decisions.

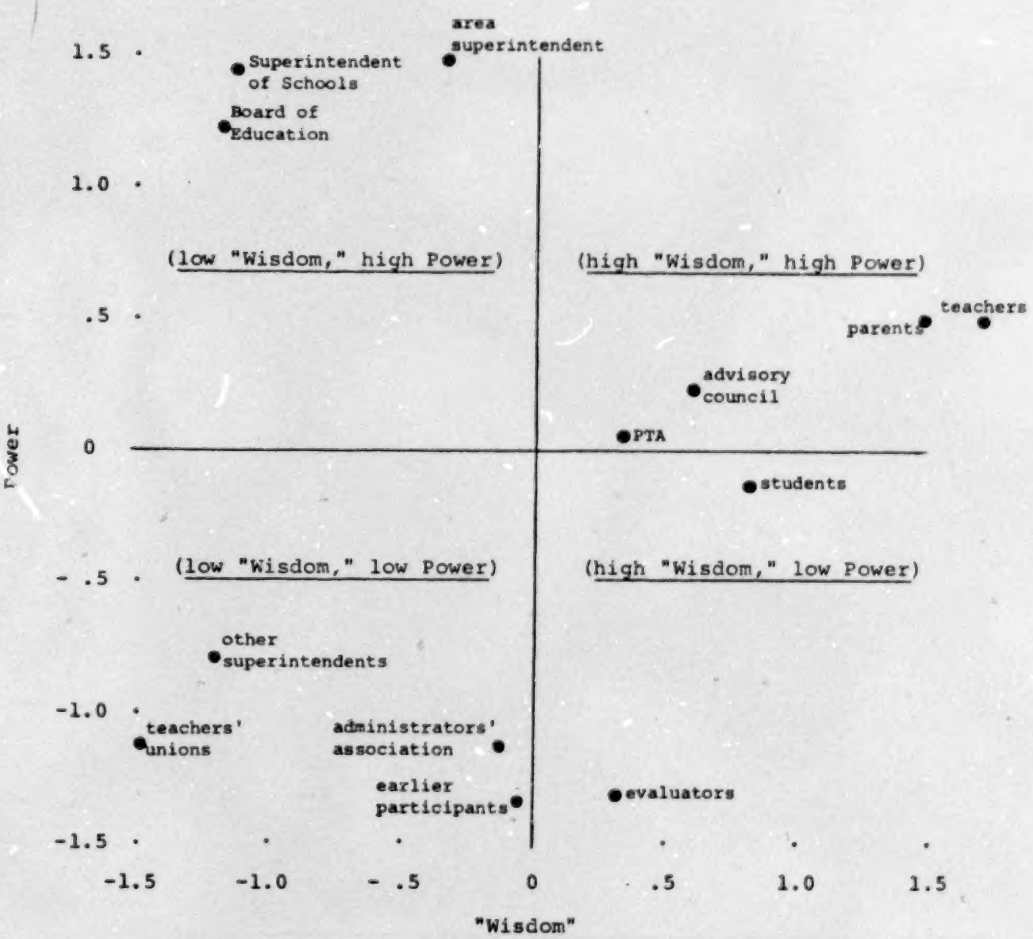

Figure 11. Standardized (z score) positions of various parties to an adoption decision on dimensions of "Wisdom" and Power, from principals' viewpoint.

Table 8

Postulated Determinants of Organizational Decisions: Implications for Evaluation Design

Determinant	Design Implication	Antecedent Questions
Objective Evidence	Express the consequences of the prospective decision quantitatively in terms of impact upon organizational goals.	(a) What are the manifest (advertised) goals that may be affected by the decision? (b) What are the latent (unadvertised or unrecognized) goals that may be affected?
Political Influence	Identify the dispositions of the decision maker's role set members.	(a) Who controls allocation of the resources that may be required for implementation of the decision? (b) Who controls the resources that the decision maker depends upon for other pursuits?
Social Influence	Identify the dispositions of the decision maker's reference group members.	(a) Who may be involved in the implementation of the decision? (b) To whom does the decision maker customarily refer for counsel?
Organizational Decision Procedure (modulates the effects of other factors)	Determine the nature of the standard operating procedure for decisions of this sort.	(a) What procedure is usually invoked to produce decisions of the kind that will be addressed by the evaluation? (b) Who is involved in the procedure? (c) What is the usual outcome?
Novelty of the Issue (modulates the effects of other factors)	Determine the degree to which precedent provides a basis for the decision--the degree to which standard operating procedure is applicable.	(a) What similar issues have arisen in the past? (b) To what extent were they resolved by application of a uniform policy? (c) To what extent did the resolutions deviate from policy or require the formulation of new policy?